<u>REMARKS</u>

In the Office Action dated February 10, 2005, the Examiner rejects claims 1 through 18 under 35 U.S.C. §101 as being directed to unpatentable subject matter. The Examiner further rejects claims 1 through 18 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 6,094,651 to Agrawal, et al. ("Agrawal"). For at least the reasons indicated below, Applicants traverse the Examiner's rejection and request allowance of claims 1 through 18.

In addition to the foregoing, the Examiner objects to claim 11 because of a minor informality. Applicants thank the Examiner for identifying the typographical error in claim 11, which Applicants hereby correct according to the amendment submitted herewith.

Regarding the rejection of claims 1 through 18 under 35 U.S.C. §101, the Examiner asserts that claims 1 through 9 "are not required to be practiced on a computer, electronic devices, electrical machines, mechanical apparatus or any concrete or tangible instrument or equipment" and are therefore "considered abstract procedures manipulating abstract concepts." Office Action dated February 10, 2005 at 2. The Examiner considers these claims not statutory because they "are not limited to practice in the technological arts." <u>Id.</u> The Examiner also argues "claims 10 through 18 use a computer to execute method claims 1-9." The Examiner believes that because the claims "could be executed by using pencil and paper" and the computer readable media "could be a carrier wave that is fleeting", the claims are not "tangibly embodied in the useful arts." <u>Id.</u> at 2-3.

Any process, whether electronic, chemical or mechanical in nature, necessarily involves an algorithm in the broad sense of the term. <u>AT&T v. Excel</u>

Communications Inc., 50 U.S.P.Q. 2d, 1447, 1450 (Fed. Cir. 1999), citing, State Street

Bank & Trust Co. v. Signature Financial Group, 47 U.S.P.Q. 2d 1596, 1602 (Fed. Cir.

1998). The proscription against patenting a "mathematical algorithm", to the extent that

this doctrine still exists, is narrowly limited to claims directed towards mathematical

algorithms in the abstract. Id. A process that applies an equation to a new and useful end

is not barred by 35 U.S.C. §101. Id. at 1451, citing, Diamond v. Diehr, 450 U.S. 175, 188

(1981). An unpatentable mathematical algorithm can be identified in that it is merely an

abstract idea constituting a disembodied concept and is thus not useful. Id., citing, State

Street Bank, 47 U.S.P.Q. 2d at 1601. A claimed process therefore satisfies 35 U.S.C.

§101 if it produces a useful, concrete and tangible result. Id.

      Process claims need not recite specific structure to satisfy 35 U.S.C. §101

as the Examiner suggests. State Street Bank, 47 U.S.P.Q 2d at 1601. The requirement

that the Examiner is applying most likely stems from the now defunct Freeman-Walter-

Able test. AT&T Corp., 50 U.S. P.Q 2d at 1452. This test, in light of recent court

rulings, has little or no applicability. Id.

      For example, in AT&T, the relevant patent (U.S. Patent No. 5,333,184)

dealt with facilitating billing techniques for long distance carriers. The patent discloses

adding a PIC (primary interexchange carrier) indicator into a data field of a standard

message record. Id. at 1448. A subscriber may be billed differently depending upon

whether the subscriber called someone with the same or different long-distance carrier on

the basis of the PCI indicator. Id. at 1448-1449. The claim in question recited, in part,

> generating a message record for an interexchange call
> between an originating subscriber and a terminating
> subscriber, and including, in said message record, a primary

> interexchange carrier (PIC) indicator having a value which
> is a function of whether or not the interexchange carrier
> associated with said terminating subscriber is a
> predetermined one of said interexchange carriers.

Id. at 1449 (emphasis in original). The AT&T court stated that although the

determination of the PIC indicator value was derived using a simple Boolean

mathematical formula (i.e., p and q), the claim did not attempt to protect this Boolean

principle nor attempt to forestall its use in other applications. Id. at 1452. As the PIC

indicator represented information about a call recipient's PIC, it was a useful non-abstract

result of the claimed process. Id. Thus, since the claim produced a useful, concrete and

tangible result and did not preempt a mathematical principle, the claim presented

statutory subject matter. Id.

Contrary to the Examiner's unsupported conclusion limiting claims to

practice in the technological arts or, alternatively, embodied in the useful arts, the

applicable test for whether a claim recites statutory subject matter is simply whether the

claim produces a useful, concrete and tangible result. Claims 1 through 18 satisfy this

test. Specifically, independent claim 1 provides a useful, concrete and tangible result in

that it is directed towards a method for recognizing and flagging a data items used by one

or more application programs as falling within the scope of a rule but anomalous when

compared with other data items falling within the scope of the rule. Independent claim 10

is directed towards computer readable media comprising program code, the program code

instructing a programmable computer to execute the method of claim 1. The result

produced by independent claims 1 and 10, as well as the claims that depend thereupon --

recognizing and flagging a data item as anomalous -- is a useful, concrete and tangible

result, thereby satisfying the test for statutory subject matter. Applicants therefore respectfully request that the Examiner withdraw the rejection of claims 1 through 18 under 35 U.S.C. §101 as being directed to non-statutory subject matter.

In addition to concluding that claims 1 through 18 are directed towards non-statutory subject matter under 35 U.S.C. §101, the Examiner also rejects the pending claims as anticipated under 35 U.S.C. §102(b) by Agrawal. Agrawal discusses improvements to multi-dimensional data processing using a multidimensional database ("MDDB" or "data cube") model. Col. 1, lns. 21-36. Using a data cube, Agrawal associates a surprise value which each cell of the data cube, . . . indicating a data anomaly when the surprise value associated with a cell exceeds a predetermined exception threshold." Col. 2, lns. 38-43.

According to independent claim 1, a method for recognizing and flagging a data item comprises determining a collection to which the data item belongs as defined by a rule, calculating statistics for the other data items in the collection, identifying whether the data item is an anomalous data item based on the statistical calculations and flagging the data items as an anomalous data item if the data item is identified as an anomalous data item. A result of the application of the method of claim 1 is the recognition and flagging of a data item used by one or more application programs as falling within the scope of the rule but anomalous when compared with other data items falling within the scope of the rule.

Agrawal fails to teach or suggest the claimed elements. The Examiner concludes that Agrawal determines a collection to which a data item belongs as defined by a rule, directing Applicants to col. 4, lns. 47-52. A review of this passage, however,

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only states that a "highlight exceptions" feature allows that determination of areas of the cube that are worth exploring in terms of exceptions on the basis of a Self-Exp value, which is an expected value, for each cell in the cube. Col. 4, lns. 47-52. Agrawal is silent regarding the element of determining a collection to which the data item belongs as defined by a rule.

The Examiner further argues that the use of a Self-Exp value for a cell reads on the elements of calculating statistics for other data items in the collection and identifying whether the data item is an anomalous data item based on the statistics calculation. Agrawal contracts the Examiner's conclusion, as it states that a "surprise value associated with each cell is a composite value that is based on at least one of a Self-Exp value for the cell, an In-Exp value for the cell and a Path-Exp value for the cell." Col. 2, lns. 44-47. Agrawal further discloses that "the Self-Exp value for the cell represents a degree of anomaly of the cell with respect to other cells . . . ", Col. 2, lns. 54-56, as opposed to statistics calculated for other data items in the collection as claimed. Agrawal therefore fails to teach or suggest both the steps of calculating statistics for other data items in a collection and identifying whether the data item is an anomalous data item based on the statistical calculations.

Claim 10 is directed towards computer readable media comprising program code, the program code instructing a programmable computer to execute the method of claim 1. Claim 10 is therefore allowable for at least the reasons provided in connection with claim 1. Applicants assert that independent claims 1 and 10 are allowable over Agrawal and respectfully request withdrawal of the rejection and allowance of claims 1 and 10.
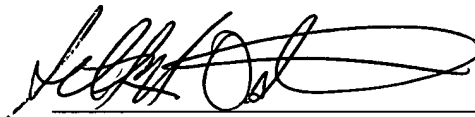
The dependent claims of the present application contain additional features that further substantially distinguish the invention of the present application over the prior art of record. Given the Applicants' position on the patentability of the independent claims, however, it is not deemed necessary at this point to delineate such distinctions.

For at least all of the above reasons, Applicants respectfully request that the Examiner withdraw all rejections, and allowance of pending claims 1 through 18 is respectfully solicited. To expedite prosecution of this application to allowance, the Examiner is invited to call the applicants' undersigned representative to discuss any issues relating to this application.
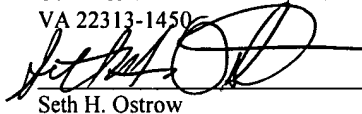
Date: _July 11, 2005_

Respectfully submitted,

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